



Elevator Safety Program
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Acceptance Inspection Checklist

Special Purpose Personnel Elevator Checklist Passenger Elevators

Code References

- ASME A17.1, 2004 – Effective 4/1/2005
- Oregon Structural Specialty Code 2003 – Effective 10/1/2004
- Oregon Electrical Specialty Code 2005 – Effective 4/1/2005
- Oregon Plumbing Specialty Code – Effective 4/1/2005
- NFPA 72, 2002; Fire Alarm Systems
- NFPA 13, 2002; Sprinkler Systems

Note: Potential code violations are not necessarily restricted to this checklist.

The comments used in this checklist give direction only and are not intended to circumvent actual code language. Please refer to the appropriate standard as necessary to clarify any code issues that may arise during this inspection.

The codes referenced in this checklist are applicable to the elevator installation as of the effective date of April 1, 2005. If the structural or electrical permit was issued prior to April 1, 2005, the previous edition of the elevator code may be used to resolve code conflicts providing a the issue date for the electrical or structure permit can be verified by the elevator inspector.

While the Elevator Safety Program does not directly regulate the building code, it is permissible to question code issues and request clarification or validation from the local building department. The elevator inspector cannot require any corrections unless supported by the local building department in such cases.

Indicate elevator type: Electric <input type="checkbox"/> Hydraulic <input type="checkbox"/>			
Site Name:			Code Date: ____/____/____
Contractor:			
Elevator ID: SPE- _____			
1 st Inspection Date	2 nd Inspection Date	3 rd Inspection Date	4 th Inspection Date

____/____/____	____/____/____	____/____/____	____/____/____
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Hoistways, Equipment & Clearances	A17.1	Comments		Pass
Hoistway Enclosure	5.7.1	If hoistway adjacent to areas permitting passage of people, it shall: 1) Be enclosed to a height of not less than 2130 mm (84 in.) above floor or stair treads. 2) Withstand 1112 N (250 lbf) 3) Reject a ball 25 mm (1 in.) in diameter		N/A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Floor Over Hoistway	5.7.1.2	1) Floor over hoistway must be provided and shall conform to requirements of Rules 100.3a and 100.3d.		N/A <input type="checkbox"/> <input type="checkbox"/>
Hoistway Car & Counterweight Clearances	5.7.5 (refer to 2.5)	1) Clearance between car & hoistway not less than 20 mm (¾ in.). 2) Clearance between car & counterweight not less than 25 mm (1 in.). 3) Clearance between counterweight & counterweight guard & between counterweight & hoistway encl. Not less than 20 mm (¾ in.).	Actual _____ mm _____ in. Actual _____ mm _____ in. Actual _____ mm _____ in.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Runby and Top Clearances	5.7.4	1) Bottom runby shall conform to requirements of rule 2.4.2, 2.4.3, & 2.4.4. a) < 100 fpm; min. 75 mm (3 in.) Actual _____ mm _____ in. b) > 100 fpm; min. 150 mm (6 in.) Actual _____ mm _____ in. 2) Clearance not less than 762 mm (30 in.) from car top to overhead structure.		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Hoistways, Equipment & Clearances	A17.1	Comments	Pass
Guide Rails & Fastenings	5.7.17 5.7.17.1 5.7.17.2 5.17.2.3	1) Car guide rails and guide-rail fastenings: a) Shall be of steel; or b) In hazardous locations may be of selected wood or other suitable nonferrous materials. c) Shall be securely fastened, not deflect more than 6 mm (¼ in.) under normal operation; d) Joints shall be well-fitted & strongly secured; e) Guide rails & joints/fastenings shall withstand application of car safety when stopping car with rated load. f) Guide rails shall extend sufficiently from bottom of h/w to top of h/w to prevent guide shoes from running off rails when car/counterweight is at extreme upper position.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Car & Counterweight Buffers	5.7.16	1) Buffers shall: a) Shall conform to Section 2.22. b) For rack and pinion elevators with spring buffers, where used..... i) Shall not be fully compressed when struck by car with rated load at governor tripping speed. c) 125% of rated speed where safety is not governor operated.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Counterweight Guiding & Construction	5.7.15	1) Counterweights shall: a) be guided to prevent horizontal movement. b) Conform to requirements of 5.7.17. c) No slackening of hoisting rope on winding drum machines d) Construction shall be one-piece solid or laminated steel c/w may be used e) Provide means to retain counterweight sections i) Sections fastened together by min. of two tie rods ii) Provide tie rods with lock nuts and cotter pins at each end.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Suspension Means	5.7.14	1) Suspension means shall: a) Consist of not less than 2 wire ropes. b) Only iron or steel wire ropes w/classification of "Elevator Wire Rope" or wire rope specifically constructed for elevator use to be used for cars & c/w's. c) Rope materials shall be manufactured by open-hearth or electric furnace process. d) Minimum diameter of any suspension rope shall be not less than 9.5 mm (3/8 in.). e) Factor of safety shall be not less than 7.95. f) Arc of contact of wire rope on traction sheave and shape of grooves shall be sufficient to produce adequate traction under all load conditions. g) All wire ropes anchored to a winding drum shall have not less than one full turn of rope on drum when car or c/w has reached limit of possible overtravel, including a fully compressed buffer. h) Each turn of wire rope on winding drum shall be in separate groove on drum. i) No car or counterweight rope shall be lengthened or repaired by splicing. j) If any wear or damage on one wire rope, entire set of ropes shall be replaced. k) Winding drum ends of car & c/w ropes shall be secured by clamps on inside of drum or by one of methods specified in Rule 1502.11h. l) Car or c/w ends of wire ropes shall be fastened by individual tapered babbitted sockets or fittings, as recommended by manufacturer. m) Method of babbitting shall conform to requirements of Rules 212.9d & 212.9f. n) Diameter of hole in small end of socket not to exceed nominal diameter of rope by more than 3/32".	<input type="checkbox"/> <input type="checkbox"/>

Car Enclosures & Gates	A17.1	Comments	Pass
Car Construction	5.7.11	1) Platforms shall be: a) metal or combination metal & wood. b) If wood, shall conform to requirements of Rule 203.8 c) Safety factor of not less than 5, based on rated load. d) No cast iron except for guide shoes & guide-shoe brackets. e) No glass except for car light/accessories necessary for operation of car. Car vision panels, if provided, shall conform to requirements of Rule 204.2e. f) Car shall not have more than one compartment.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Car Doors & Gates	5.7.10.5	1) When closed, shall guard opening to its full height 2) Be provided at each entrance to car. 3) May be of solid or openwork construction rejecting a 25 mm (1 in.) ball. 4) Collapsible gates to reject ball of 75 mm (3 in.).	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Car Safeties & Governors	5.7.13	1) When suspended with wire ropes: a) Type "A" safeties required. b) Speed governor shall be located where it cannot be struck by car or counterweight in event of overtravel. c) Tripped at maximum speed of 0.9 m/s (175 fpm). d) Sufficient space for full movement of governor parts.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Car Enclosures	5.7.10.1 5.7.10.2 5.7.10.3 5.7.10.4	1) Enclosure a) Except at entrance, cars shall be fully enclosed with metal at sides & top. b) Sides shall be solid or openwork shall reject a 25 mm (1 in.) ball. c) Minimum clear height inside car shall be 1980 mm (78 in.) 2) Car enclosure shall be secured to platform. 3) Illumination..... a) Each car shall be provided with electric light and light control switch. b) Light shall provide at least 27 lx (2½ fc.) at landing edge of car platform. 4) When car size & construction permit, an emergency exit w/cover may be provided in top of car enclosure conforming to the following requirements:..... a) Exit opening shall have an area of not less than 0.227 m (352 in.) and shall not measure less than 406 mm (16 in.) on any side. b) Located to provide clear unobstructed passageway. c) Exit cover shall open outward & hinged/attached to top of car d) Exit cover shall be equipped w/switch or contact that, when opened, will cause device to remove power from machine motor & brake. e) Exit cover switch or contact shall be of a manual reset type.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Safeties & Governors	A17.1	Comments	Pass
Governor Rope	5.7.13.2.3	1) Governor ropes shall conform to requirements of 2.18.5 when applicable: a) Min. 9.5 mm (3/8 in.) diameter b) Iron c) Steel d) Monel metal e) Phosphor bronze f) Stainless steel g) Rope tag must include:..... i) Rope diameter ii) Breaking strength iii) Material grade iv) Mm/yyyy installed v) Preformed or non-preformed vi) Construction classification vii) Firm installing rope viii) Manufacturer ix) Minimum 1.5 mm (1/16 in.) lettering	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Safeties & Governors (cont.)	A17.1	Comments	Pass
Car Safeties	5.7.13.2 5.7.13.2.1 5.7.13.2.2 5.7.13.3 5.7.13.4 5.7.13.5	1) Car safeties & governors for rack and pinion type elevators: a) Car shall be provided with one or more safeties identified in Rule 205.5 b) Safeties shall be attached to car frame or supporting structure. c) Car safeties shall be mounted on single car frame & shall operate on one pair of guide members or on one vertical rack. 2) Stopping distances:..... a) Travel of car measured from governor-tripping to full stop shall not exceed the following: i) For car safeties: 1625 mm (64 in.) ii) For counterweight safeties: 1980 mm (78 in.) 3) Marking plates:..... a) Shall be securely attached to each safety; readily visible & marked in permanent letters not less than 6.4 mm (¼ in.) in height indicating the following: i) Maximum governor tripping speed in feet per minute ii) Maximum weight in pounds safety is designed to stop & sustain. 4) Motor control circuit & brake control circuit shall be opened before, or at time, safety applies. 5) Car safeties shall be applied mechanically. 6) Minimum factors of safety & stresses of safety parts & rope connections shall conform to requirements of 2.17.12.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Capacity & Speed	A17.1	Comments	Pass
Capacity and Data Plates	5.7.12.1	1) Capacity and data plates conforming to requirements of 2.16.3 shall be provided.	<input type="checkbox"/>
Limitation of Load, Speed, and Platform Area	5.7.12.2	1) Rated load shall not exceed 454 kg (1000 lb.) 2) Inside net platform area shall not exceed 1.208 m ² (13 ft ²) 3) Minimum rated load not less than that based on 3.35 kPa (70 lbf/ft ²) of inside net platform area or 113 kg (250 lb.), whichever is greater. 4) Rated speed shall not exceed 0.76 m/s (150 fpm). 5) Winding drum machines shall comply with 2.24.1	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Driving Machines & Sheaves	A17.1	Comments	Pass
Driving Machines and Sheaves	5.7.18 5.7.18.1 5.7.18.1.2	1) Driving machines shall be: a) Traction; b) Drum; c) Screw; or d) rack and pinion type. Note: Installation of belt-drive & chain-drive machines is prohibited. 2) Screw machines shall conform to requirements of Section 4.2.15. 3) Rack & Pinion drive shall:..... a) Consist of one or more power-driven rotating pinions mounted on car and arranged to travel on a stationary vertical rack mounted in h/w. b) Shall be at least one pinion, one rack, and 2 backup rollers. c) Pinions & rack shall be of steel with a minimum safety factor of 8. 4) Driving machines in car shall be fully enclosed w/solid or openwork metal & shall reject ball 13 mm (½ in.) & shall be locked.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Material & Grooving for Sheaves & Drums	5.7.18.2	1) Winding drums, traction sheaves, and overhead & deflecting sheaves: a) Shall be of cast iron or steel; pitch diameter of not less 30 times the diameter of wire suspension ropes, except where 8 x 19 steel ropes are used on drum type, then may be reduced to 21 times diameter of rope. b) Rope grooves shall be machined.	<input type="checkbox"/> <input type="checkbox"/>

Factor of Safety for Driving Machines & Sheaves	5.7.18.3	1) Factor of safety for driving machines & sheaves shall conform to requirements of 2.24.3	<input type="checkbox"/>			
Bolts & Set Screws	5.7.18.4	1) Bolts transmitting torque, & set screws shall conform to requirements of Rule 208.4.	<input type="checkbox"/>			
Driving Machines & Sheaves (cont.)	A17.1	Comments	Pass			
Friction Gearing or Clutch Mechanism	5.7.18.5	1) Friction-gearing or clutch mechanisms shall not be used for connecting drum or sheaves to main driving mechanism.	<input type="checkbox"/>			
Use of Cast Iron	5.7.18.6	1) Worms and worm gears made of cast iron shall not be used.	<input type="checkbox"/>			
Brake Operation	5.7.18.7	1) Driving machines shall be equipped with electrically released spring-applied friction brakes.	<input type="checkbox"/>			
	5.7.18.8	2) A single ground or short circuit, a countervoltage, or a motor field discharge shall not prevent brake magnet from allowing brake to set when operating device is placed in stop position.	<input type="checkbox"/>			
Access to Machines & Sheaves	5.7.18.9	1) Permanent, safe, convenient means of access to machinery spaces or rooms shall be provided for authorized personnel. Note: Machines rooms are not always provided. Where provided, clearances apply.	<input type="checkbox"/>			
Electrical Clearances	110-26a	Minimum Clear Distance			<input type="checkbox"/>	
		Nominal Voltage to Ground	Condition 1 <input type="checkbox"/>	Condition 2 <input type="checkbox"/>		Condition 3 <input type="checkbox"/>
		0–150	900 mm (3 ft)	900 mm (3 ft)		900 mm (3 ft)
		151–600	900 mm (3 ft)	1 m (31/2 ft)		1.2 m (4 ft)
		Condition 1 — Exposed live parts on one side and no live or grounded parts on the other side of the working space, or exposed live parts on both sides effectively guarded by suitable wood or other insulating materials. Insulated wire or insulated busbars operating at not over 300 volts to ground shall not be considered live parts. Condition 2 — Exposed live parts on one side and grounded parts on the other side. Concrete, brick, or tile walls shall be considered as grounded. Condition 3 — Exposed live parts on both sides of the work space (not guarded as provided in Condition 1) with the operator between.				
Emergency Signal and/or Communication	5.7.21	1) Each elevator shall be equipped with alarm button/switch or means of voice communication to receiving station always attended when elevator in use.	<input type="checkbox"/>			
		2) If alarm device/communication system normally activated by utility power supply, it shall be backed by manual or battery operated device.	<input type="checkbox"/>			
Code Data Plate	8.9.1	1) A code data plate conforming to requirements of 8.9 shall be provided.	<input type="checkbox"/>			
	8.9.2	a) Must be securely attached to the main line disconnect or controller.	<input type="checkbox"/>			
	8.9.3	b) Lettering must be:.....	<input type="checkbox"/>			
		i) Stamped	<input type="checkbox"/>			
		ii) Etched	<input type="checkbox"/>			
	iii) Cast; or otherwise	<input type="checkbox"/>				
	iv) Permanently applied	<input type="checkbox"/>				
	v) Minimum height of 3.2 mm (0.125 in.)	<input type="checkbox"/>				
